

Working with Radicals - PRACTICE

Simplify.

1) $3\sqrt{5} - 3\sqrt{5}$

2) $-2\sqrt{6} - \sqrt{6}$

3) $-3\sqrt{3} - 2\sqrt{5} - 3\sqrt{3}$

4) $2\sqrt{3} - \sqrt{3} - 2\sqrt{3}$

5) $-2\sqrt{5} + 3\sqrt{3} + 2\sqrt{6} - \sqrt{5}$

6) $2\sqrt{5} - 2\sqrt{2} - \sqrt{3} - 2\sqrt{5}$

7) $-2\sqrt{12} + 2\sqrt{3}$

8) $-2\sqrt{8} + 3\sqrt{18}$

$$9) -\sqrt{6} \cdot -2\sqrt{6}$$

$$10) 5\sqrt{5} \cdot 5\sqrt{2}$$

$$11) -\sqrt[5]{-320} \cdot -5\sqrt[5]{-32}$$

$$12) 4\sqrt[3]{-50} \cdot 4\sqrt[3]{15}$$

$$13) -\sqrt{15}(-2\sqrt{5} + 5\sqrt{6})$$

$$14) 2\sqrt{15}(3 - \sqrt{10})$$

$$15) -\sqrt{5}(5\sqrt{2} - \sqrt{5})$$

$$16) (3\sqrt{2} - 3\sqrt{3})(4\sqrt{3} - 3\sqrt{3})$$

$$17) (1 + 4\sqrt{2})(-2 - \sqrt{2})$$

$$18) (-3\sqrt{5} + 1)(2\sqrt{5} - 2)$$

Working with Radicals - PRACTICE

Simplify.

1) $3\sqrt{5} - 3\sqrt{5}$

 0

2) $-2\sqrt{6} - \sqrt{6}$

 $-3\sqrt{6}$

3) $-3\sqrt{3} - 2\sqrt{5} - 3\sqrt{3}$

 $-6\sqrt{3} - 2\sqrt{5}$

4) $2\sqrt{3} - \sqrt{3} - 2\sqrt{3}$

 $-\sqrt{3}$

5) $-2\sqrt{5} + 3\sqrt{3} + 2\sqrt{6} - \sqrt{5}$

 $-3\sqrt{5} + 3\sqrt{3} + 2\sqrt{6}$

6) $2\sqrt{5} - 2\sqrt{2} - \sqrt{3} - 2\sqrt{5}$

 $-2\sqrt{2} - \sqrt{3}$

7) $-2\sqrt{12} + 2\sqrt{3}$

 $-2\sqrt{3}$

8) $-2\sqrt{8} + 3\sqrt{18}$

 $5\sqrt{2}$

$$9) -\sqrt{6} \cdot -2\sqrt{6}$$
$$12$$

$$10) 5\sqrt{5} \cdot 5\sqrt{2}$$
$$25\sqrt{10}$$

$$11) -\sqrt[5]{-320} \cdot -5\sqrt[5]{-32}$$
$$5\sqrt[5]{10240} = 20\sqrt[5]{10}$$

$$12) 4\sqrt[3]{-50} \cdot 4\sqrt[3]{15}$$
$$16\sqrt[3]{-750} = -80\sqrt[3]{6}$$

$$13) -\sqrt{15}(-2\sqrt{5} + 5\sqrt{6})$$
$$10\sqrt{3} - 15\sqrt{10}$$

$$14) 2\sqrt{15}(3 - \sqrt{10})$$
$$6\sqrt{15} - 10\sqrt{6}$$

$$15) -\sqrt{5}(5\sqrt{2} - \sqrt{5})$$
$$-5\sqrt{10} + 5$$

$$16) (3\sqrt{2} - 3\sqrt{3})(4\sqrt{3} - 3\sqrt{3})$$
$$3\sqrt{6} - 9$$

$$17) (1 + 4\sqrt{2})(-2 - \sqrt{2})$$
$$-10 - 9\sqrt{2}$$

$$18) (-3\sqrt{5} + 1)(2\sqrt{5} - 2)$$
$$-32 + 8\sqrt{5}$$